

SYSTEMS AND METHODS FOR ELECTROSURGICAL DISSECTION AND HARVESTING OF TISSUE

ABSTRACT OF THE DISCLOSURE

The present invention provides systems, apparatus and methods for
5 selectively applying electrical energy to body tissue in order to incise, dissect, harvest or
transect tissues or an organ of a patient. The electrosurgical systems and methods are
useful, *inter alia*, for accessing, dissecting, and transecting a graft blood vessel, such as
the internal mammary arteries (IMA) or the saphenous vein, for use in a by-pass
procedure. A method of the present invention comprises positioning an electrosurgical
10 probe adjacent the target tissue so that one or more active electrode(s) are brought into at
least partial contact or close proximity with a target site in the presence of an electrically
conductive fluid. A high frequency voltage is then applied between the active electrode and
one or more return electrode(s). During application of the high frequency voltage, the
electrosurgical probe may be translated, reciprocated, or otherwise manipulated such that
15 the active electrode is moved with respect to the tissue. The present invention
volumetrically removes the tissue at the point of incision, dissection, or transection in a
cool ablation process that minimizes thermal damage to surrounding, non-target tissue.